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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,565	07/02/2001	Yong-Woon Kim	300055.505	2722

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EXAMINER

REFAI, RAMSEY

ART UNIT PAPER NUMBER

2154

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,565

Applicant(s)

KIM ET AL.

Examiner

Ramsey M Refai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-14 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "the prefix information" in line 8. There is insufficient antecedent basis for these limitations in the claim.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim recites the limitation "special character" in line 1. The applicant fails to disclose what this pertains to in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 – 4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Choi et al (U.S. Patent Publication No. 2002/0136387).

7. As per claim 1, Choi et al teach a method of automatically generating an IPv6 address using an E.164 telephone number, comprising:

a first step of reading in the telephone number of a telephone terminal (**abstract and paragraph [0046]**);

a second step of converting respective decimal numbers constituting the telephone number of the telephone terminal into a 4-bit binary format (**paragraph [0037] and Figure 1**);

a third step of padding a specific bit to the bit sequence converted in said second step to produce an interface ID having a pre-established size (**paragraphs [0004-0005 and 00037] and Figure 3**); and

a fourth step of combining said interface ID and the prefix information to produce an IP address (**paragraphs [0045-00047]**).

8. As per claim 2, Choi et al teach reading in the telephone number of the telephone terminal in accordance with E.164 format (**abstract**).

9. As per claim 3, Choi et al teach said telephone number of said telephone terminal comprises a country identification number, a local identification number and a subscriber telephone number (**Figure 1, 5, 7, 8 and paragraph [0023]**).

10. As per claim 4, Choi et al teach combining the prefix information of 64 bit and the interface ID of 64 bit created using the E.164 telephone number to thereby produce an IPv6 unicast address (**paragraph [0013] and Figures 1 and 3**).

11. As per claim 6, it contains similar limitations as claim 1, therefore are rejected under the same rationale.

12. Claims 7 – 8 and 12 - 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson et al (U.S. Patent No. **5,974,453**).

13. As per claim 7, Anderson et al teach a method of looking up an IP address corresponding to a telephone number name address, comprising:

a first step of receiving a request for an IP address of said telephone number name address in a local domain DNS server (**column 2, lines 25 – 50**);

a second step of receiving a server address which points to a corresponding country DNS server using a country identification number of said telephone number name address in a client node (**column 6, lines 12 – 26 and 55-66**);

a third step of accessing a corresponding country DNS server recognized in said second step to recognize an address of a server for managing a corresponding local area DNS, using a local identification number of said telephone number name address (**column 5, lines 33 – 67**);
and

a fourth step of accessing a corresponding local area DNS server recognized in said third step to recognize an IP address of a corresponding subscriber's telephone number, using a subscriber's telephone number of said telephone number name address (**column 4, lines 27 – 40, column 2, lines 25 – 50 and abstract**)..

14. As per claim 8, Anderson et al teach recognizing an address of a server for managing a corresponding prefix DNS using a prefix identification number of said telephone number name address by accessing the corresponding local area DNS server recognized in said third step, and recognizes an IP address of said subscriber's telephone number by accessing said corresponding prefix DNS server (**column 4, lines 27 – 40, column 2, lines 25 – 50 and abstract**).

15. As per claim 12, the claim contains similar limitations as claim 7 above, therefore it is rejected under the same rationale.

16. As per claim 13, Anderson et al teach a DNS server system for resolving an IP address for a telephone number name address, comprising:

a root DNS server for managing country DNS server addresses corresponding to country identification numbers of said telephone number name address (**column 3, lines 49 – 62**);

a country DNS server for managing local area DNS server addresses corresponding to local identification numbers of said telephone number name address (**column 4, lines 10 – 20, Figure 1, and column 5, lines 10 - 46**);

a local domain DNS server for managing prefix DNS server addresses or IP addresses corresponding to prefix identification numbers of said telephone number name address (**column 4, lines 10-20 and Figure 1**); and

a subject DNS server for looking up an IP address corresponding to said telephone number name address to provide an address resolver in a client node with the IP address, through

said root DNS server, a country DNS server, a local area DNS server and a local domain DNS server (**column 3, lines 10 – 40 and column 2, lines 25 – 50**).

17. As per claim 14, Anderson et al teach a prefix DNS server for managing IP addresses corresponding to subscriber's telephone numbers of said telephone number name address (**column 3, lines 10 – 40 and column 5, lines 47 – 67**).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al (U.S. Patent Publication No. 2002/0136387) as applied to claim 1 above, and further in view of Childs et al (U.S. Patent No. 5,623,545).

20. As per claim 5, Choi et al teach a method of automatically generating an IPv6 address using an E.164 telephone number(**abstract**) and the use of an interface ID (**Figure 3**).

21. Choi et al fail to teach a method wherein said third step pads 0 or 1 bit to upper or lower bit digits of said binary bit sequence to produce the of 64 bit.

22. However, Childs et al teach a method of padding a 1 and as many zeros as necessary to become a 64 bit (**column 1, lines 15-27**). It would have been obvious to one of the ordinary skill

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in the art at the time of the applicants invention to combine the teachings of Choi et al and Childs et al because Childs et al's use of padding 1s or 0's to bit sequences in Choi et al's method would allow for bit sequences from telephone numbers that have decimal numbers below the required amount, after binary conversion, to fulfill the required 64 bit format by adding 1's or 0's.

23. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (U.S. Patent No. **5,974,453**) as applied to claim 7 above, and further in view of Choi et al (U.S. Patent Publication No. **2002/0136387**).

24. As per claim 9, Anderson et al fail to teach adding a country identification number to the telephone name number address, if said telephone number name address includes only a local identification number and a subscriber's telephone number, and then performing said second step.

25. However, Choi et al teach that country numbers maybe added to a telephone number that contains subscriber ID and area code or zip code (**paragraph [0042 - 0046] and Figure 1 and 7**). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Anderson et al and Choi et al because Choi et al's use of adding a country code to a telephone number in Anderson et al's method would allow for appropriate routing and accessing of a country DNS server corresponding to a telephone number.

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26. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (U.S. Patent No. **5,974,453**) as applied to claim 7 above, and further in view of Voit et al (U.S. Patent No. **6,157,648**).

27. As per claim 10, Anderson et al fail to teach a method, wherein said telephone number name address is a telephone number of E.164 format.

28. However, Voit et al teach a method wherein an E.164 address (telephone number) is provided by a client and the directory returns an IP address (**column 15, lines 47 –54**). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Anderson et al and Voit et al because Voit et al's use of an E.164 format telephone number in Anderson et al's method would provide a 15 decimal digits long address and would include a country code, area or city code, and a local number and would also provide appropriate routing to a DNS server.

29. As per claim 11, Anderson et al teach a special character at the front of a telephone number of said E.164 format (**column 3, lines 29 –40 and column 5, lines 48 –67**).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Kelly (U.S. Patent No. 6,347,085)
- b. Melen et al (U.S. Patent No. 5,956,391)

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- c. Voit et al (U.S. Patent No.6,295,292)
- d. Kobayashi (U.S. Patent Publication No. 2001/0005366)
- e. Borella et al (U.S. Patent No. 6,731,642).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey M Refai whose telephone number is (703) 605-4361.

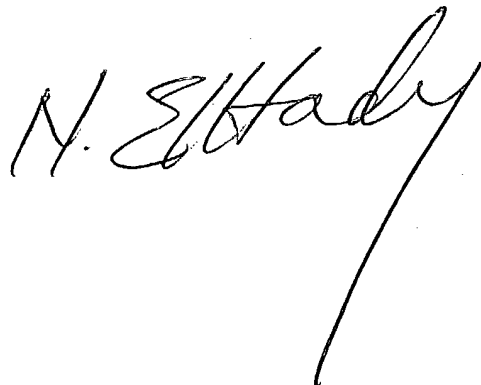
The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey M Refai
Examiner
Art Unit 2154

RMR
September 15, 2004

A handwritten signature in black ink, appearing to read "N. E. Hadley", with a long, sweeping diagonal stroke extending from the bottom right of the signature.